

R E M A R K S

Claims 1 - 8 are currently pending. In the instant Office Action, the Examiner raised two issues, which are set forth by number in the order they are herein addressed:

- 1) Claims 1 and 5 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Vidovic (U.S. Patent No. 4,254,483) in view of Krajci (U.S. Patent No. 6,182,497 B1) and Nakajima *et al.* (U.S. Patent No. 6,094,143); and
- 2) Claims 2 - 4 and 6 - 8 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Vidovic, in view of Krajci and Nakajima *et al.*, in further view of Armstrong (U.S. Patent No. 4,554,411).

Applicant has amended Claims 1 and 5, in order to further the prosecution of the present application and Applicant's business interests, yet without acquiescing to the Examiner's arguments. Applicant reserves the right to prosecute the original, similar, or broader claims in one or more future application(s). The amendment does not introduce new matter and is not intended to narrow the scope of any of the claims within the meaning of *Festo*.¹

1. The Claims Are Patentable Over Vidovic, Krajci and Nakajima *et al.*

The Examiner has rejected Claims 1 and 5 under 35 U.S.C. § 103(a), as allegedly unpatentable over Vidovic (U.S. Patent No. 4,254,483) in view of Krajci (U.S. Patent No. 6,182,497 B1) and Nakajima *et al.* (U.S. Patent No. 6,094,143). The Examiner states:

[i]n reference to claims 1, 5, Vidovic discloses the claimed alarm panel connected to an event sensor via cable, and circuitry associated with the conductors . . . *Vidovic does not specifically disclose the claimed cable comprising two conductors and the event sensor including two terminals.* Krajci discloses a gas detection system including a gas detector 12 with cables 38 used for providing power to the detector; each cable may be a 4-conductor cable with two conductors being used for simplex data communications between gas detectors 12 and protocol convertors 20 and two conductors being used for the power supply (col. 4, lines 58-64). Nakajima discloses a smoke sensor including a warning circuit 12 and voltage circuit 13 connected to two terminals 11a and 11b; the two terminals 11a and 11b also connected to the smoke sensor (col. 3, lines 46-64). Since Vidovic discloses an alarm system including a circuit and cable connecting the input, sensors, and output devices

¹ *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 122 S.Ct. 1831, 1838, 62 USPQ2d 1705, 1710 (2002).

together, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of using a cable comprising two conductors, as disclosed by Krajci, and an event sensor comprising only two terminals, as disclosed by Nakajima, all with the system of Vidovic, as a choice of design that would ensure that sufficient amount of power will be provided to the event sensor no matter the length of the cable as well as using the terminal to determine when an alarm condition is being sensed (Office Action, pages 2 and 3, emphasis added).

Applicant must respectfully disagree. Nonetheless, Applicant has amended Claims 1 and 5, in order to further the prosecution of the present application and Applicant's business interests, yet without acquiescing to the Examiner's arguments, and while reserving the right to prosecute the original, similar, or broader Claims in one or more future application(s). Specifically, Applicant has amended Claims 1 and 5 to recite that "to indicate tampering at the sensor, severing of the cable **and** an event detected by the sensor."

The Examiner is reminded that a *prima facie* case of obviousness requires: (a) some suggestion or motivation to combine or modify the reference teachings, (b) a reasonable expectation of success, and (c) a teaching or suggestion of all claim limitations (MPEP, 2143). Applicant respectfully submits that the Examiner has failed to establish two of the three elements of a *prima facie* case of obviousness, in the rejection of Claims 1 and 5.

In the first place, the only basis provided by the Examiner for combining the teachings of Vidovic, Krajci and Nakajima *et al.*, is the factually unsupported (and insupportable) conclusory statement that the three references could be combined as a "choice of design." The Federal Circuit has expressly forbidden this hindsight-based approach. Specifically, the Federal Circuit held that "[t]he factual inquiry whether to combine references must be thorough and searching. It must be based on **objective evidence** of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with.² Indeed, the Federal Circuit has made it clear that "[b]road, conclusory statements regarding the teachings of multiple references, standing alone, are **not 'evidence.'**"³ Thus, the Examiner's conclusory motivation statement falls well short of the standards established by the Federal Circuit. Indeed, the prior art references cited by the Examiner neither explicitly nor implicitly provide

² *In re Lee*, 277 F.3d 1338, 1344 (Fed. Cir. 2002); internal citations omitted; emphasis added.

³ *In re Dembicza*k, 175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999); emphasis added.

the requisite motivation for their combination in part because the prior art references are directed at solving distinct problems. Vidovic is related to providing "an ultrasonic intrusion alarm system having improved tampering resistance" ('483, column 1, at lines 54-66), while Krajci is related to providing a hazardous "gas detection system which is less expensive to supply and configure" for use in industrial plants ('497, column 1, at lines 49-51), and Nakajima *et al.* is related to providing a light obstruction type smoke sensor with a higher "signal-to-noise ratio" ('143, at column 2, lines 28-41).

Additionally, the combination of Vidovic, Krajci and Nakajima *et al.* fails to disclose all the limitations of amended Claims 1 and 5 requiring an alarm system having a cable and circuitry "for providing current to the event sensor and detecting changes in said current to indicate *tampering* at the sensor, *severing* of the cable and an event detected by the sensor" via an event sensor which *comprises only two terminals*, and a *cable comprising only two conductors*, respectively. In regard to Claim 1, the Examiner is relying upon Nakajima *et al.* for disclosure of an event sensor comprising only two terminals, since Vidovic and Krajci both disclose event sensors comprising **more than two terminals** (5 and 4 terminals respectively). However, the smoke sensor of Nakajima *et al.* is configured to **exclusively** relay a change in current through the sensor terminals to indicate an event (smoke) detected by the sensor ('143, Figures 1 and 2). In fact, Nakajima *et al.* make no mention of changes of current to indicate tampering at the sensor or severing of the cable (let alone the circuitry required to transmit such signals), which is not surprising given that this disclosure is related to a smoke detector rather than a burglar alarm.

In regard to Claim 5, the Examiner is apparently relying upon Krajci for disclosure of a cable comprising two conductors, since Vidovic discloses a cable for this purpose comprising **five conductors**, while Nakajima *et al.* simply alludes to "sensor lines which are **not shown**" ('143, at column 2, lines 15-18). However, the claimed invention requires a *cable comprising only two conductors*, while Krajci teaches "**4-conductor cables** with two conductors being used for simplex data communications . . . and two conductors being used for the power supply" ('497, at column 4, lines 58-64). Moreover, like Nakajima *et al.*, Krajci makes no mention of changes of current to indicate tampering at the sensor or severing of the cable (let alone the circuitry required to transmit such signals), which is not surprising given that this disclosure is related to a hazardous gas monitor rather than a burglar alarm.

Since, the Examiner has failed to establish a *prima facie* case of obviousness, Applicant respectfully requests that this rejection be withdrawn.

2. The Claims Are Patentable Over The Combination of Vidovic in View of Krajci, Nakajima *et al.*, and Armstrong

The Examiner has rejected Claims 2-4 and 6-8 under 35 U.S.C. § 103(a), as allegedly unpatentable over Vidovic (U.S. Patent No. 4,254,483), in view of Krajci and Nakajima *et al.* as applied to Claims 1 and 5 above, and in further view of Armstrong (U.S. Patent No. 4,554,411). In particular, the Examiner relies upon the ultrasonic alarm system of Vidovic, the six-wire cable of Armstrong, and unsupported conclusory statements about the prior art to reject the claims (Office Action, pages 3-5). Again, Applicant respectfully submits that the Examiner has failed to establish one or more of elements of a *prima facie* case of obviousness, in the rejections of Claims 2-4 and 6-8.

In the first place, rejected dependent Claims 2 and 6 require a **two-conductor cable**. The Examiner admits that "Vidovic does not specifically disclose the claimed two-conductor cable" (Office Action, page 3). Moreover, as discussed above, the cable 20 connecting the processor 12 to the receiver heads 18 of Vidovic is not equivalent to the cable of the claims, as Vidovic's cable comprises *five conductors* (wires labeled 88, 118, 90, 170 and 174). Similarly, the teachings of Armstrong do not remedy this deficiency, as Armstrong is relied upon for a *six wire cable* 104.

Secondly, rejected Claims 3 and 7 depend upon Claims 2 and 6, and thus require a **two-conductor cable**. In addition, rejected Claims 3 and 7 require elements that the Examiner admits are not provided by the cited art. Specifically, the Examiner states that:

"Vidovic does not specifically disclose the claimed shorting of the cable providing a maximum current state, an event detection by the sensor providing a medium current state, normal operating conditions providing a low current state, a severed cable or tampering with the event sensor providing a very low or no current state ... Since Vidovic discloses a processor used for detecting various signals ... it would have been obvious to one of ordinary skill in the art at the time of the invention to use any level of current or voltage provided to represent a tamper, event sensor, or cut cable, to ensure that the control panel will issue the correct alarm" (Office Action, page 4, emphasis added).

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Applicant respectfully disagrees, and further asserts that it is the circuitry of the claimed invention that transmits the appropriate signal to the control panel. Specifically, Claims 3 and 7 further require that "circuitry reacts to the current state of the conductors to provide appropriate conditions to each conductor of said six-conductor cable for recognition by said alarm control panel." Neither Vidovic nor Armstrong provide multiple current states let alone the circuitry for their detection with the claimed cables.

Moreover, Claims 4 and 8 require a **passive infra-red detector**. Again, the Examiner admits although:

Vidovic does not specifically disclose the claimed even[t] sensor is a passive infra-red detector, he does disclose the head receivers 18 comprised of ultrasonic sensors (col. 2, lines 57-68). Since it is well known in the art to use various types of sensors to detect intrusion, it would have been obvious to one or ordinary skill in the art at the time of the invention to use a passive infra-red detector with or in place of Vidovic's sensors, as a means to provide a warning signal upon determining a disturbance within a specified field" (Office Action, pages 4 and 5).

Applicant must respectfully disagree. The Examiner's entire rejection rests on a factually unsupported (and insupportable) conclusory statement. In making this obviousness rejection, the Examiner merely states since it was well known in the art to use various types of sensors to detect intrusion, it would have been obvious to use a passive infrared detector in place of the prior art sensor. This statement is conclusory because it merely recites that a sensor is taught in the prior art reference, and that it is well known that such sensors can be replaced. As detailed above in Section 1, the Federal Circuit has expressly forbidden this hindsight-based approach. The Examiner's conclusory motivation statement falls well short of the standards established by the Federal Circuit. In particular, the Examiner has provided no rationale, other than that "it is well known in the art," as to why a person of ordinary skill in the art would be motivated substitute an infrared sensor for sensor of Vidovic. Vidovic certainly does not suggest that this type of modification can be made or that its alarm system should incorporate any other sensors than those disclosed. Given this fact, it is apparent that the Examiner has applied hindsight reconstruction to reject the claims. This is the situation that the above standards are meant to prevent:

The Board did not . . . explain what specific understanding or technological principal within the knowledge of one of ordinary skill in the art would have suggested the combination. **Instead, the Board merely invoked the high**

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level of skill in the art. If such a rote invocation could suffice to supply a motivation to combine, the more sophisticated scientific fields would rarely, if ever, experience a patentable technological advance. Instead, in complex scientific fields, the Board could routinely identify the prior art elements in an application, invoke the lofty level of skill, and rest its case for rejection. To counter this potential weakness in the obviousness construct, the suggestion to combine requirement stands as a critical safeguard against hindsight analysis and rote application of the legal test for obviousness.⁴

The instant facts closely parallel the facts of *In re Rouffet*. The Examiner has pointed to nothing in Vidovic that indicates that infrared sensors can be used in place of the disclosed sensors and has merely invoked what is "known in the art." This is not the factually supported "objective evidence of record" as required by the Federal Circuit. At best, it is the non-objective supposition of the Examiner with absolutely no factual support. Accordingly, Applicant respectfully submits that the Examiner has failed to meet the Federal Circuit standards for motivation to modify or combine reference(s).

Lastly, rejected Claims 2-4 depend upon independent Claim 1, and rejected Claims 6-8 depend upon independent Claim 5, which read upon an event sensor **comprising only two terminals** and a cable **comprising only two conductors**, respectively, for providing current to the event sensor and detecting changes in said current to indicate *tampering* at the sensor, *severing* of the cable *and* an event detected by the sensor. As discussed above, these limitations distinguish the pending claims from any system derived by combining Vidovic, Krajci and Nakajima *et al.*. The teachings of Armstrong do not remedy this deficiency.

As a *prima facie* case of obviousness has not been established, Applicant respectfully requests that this rejection be withdrawn.

⁴ *In re Rouffet*, 47 USPQ2d 1453 (Fed. Cir. 1998); emphasis added.

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CONCLUSION

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. However, should the Examiner believe that a telephone interview would aid in the prosecution of this application, Applicant encourages the Examiner to call the undersigned collect.

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